



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES, AND
TOXIC SUBSTANCES

Note to Reader
August 7, 1998

Background: As part of its effort to involve the public in the implementation of the Food Quality Protection Act of 1996 (FQPA), which is designed to ensure that the United States continues to have the safest and most abundant food supply, EPA is undertaking an effort to open public dockets on the organophosphate pesticides. These dockets will make available to all interested parties documents that were developed as part of the U.S. Environmental Protection Agency's process for making reregistration eligibility decisions and tolerance reassessments consistent with FQPA. The dockets include preliminary health assessments and, where available, ecological risk assessments conducted by EPA, rebuttals or corrections to the risk assessments submitted by chemical registrants, and the Agency's response to the registrants' submissions.

The analyses contained in this docket are preliminary in nature and represent the information available to EPA at the time they were prepared. Additional information may have been submitted to EPA which has not yet been incorporated into these analyses, and registrants or others may be developing relevant information. It's common and appropriate that new information and analyses will be used to revise and refine the evaluations contained in these dockets to make them more comprehensive and realistic. The Agency cautions against premature conclusions based on these preliminary assessments and against any use of information contained in these documents out of their full context. Throughout this process, if unacceptable risks are identified, EPA will act to reduce or eliminate the risks.

There is a 60 day comment period in which the public and all interested parties are invited to submit comments on the information in this docket. Comments should directly relate to this organophosphate and to the information and issues

available in the information in this docket. Once the comment period closes, EPA will review all comments and revise the risk assessments, as necessary.

These preliminary risk assessments represent an early stage in the process by which EPA is evaluating the regulatory requirements applicable to existing pesticides. Through this opportunity for notice and comment, the Agency hopes to advance the openness and scientific soundness underpinning its decisions. This process is designed to assure that America continues to enjoy the safest and most abundant food supply. Through implementation of EPA's tolerance reassessment program under the Food Quality Protection Act, the food supply will become even safer. Leading health experts recommend that all people eat a wide variety of foods, including at least five servings of fruits and vegetables a day.

Note: This sheet is provided to help the reader understand how refined and developed the pesticide file is as of the date prepared, what if any changes have occurred recently, and what new information, if any, is expected to be included in the analysis before decisions are made. **It is not meant to be a summary of all current information regarding the chemical.** Rather, the sheet provides some context to better understand the substantive material in the docket (RED chapters, registrant rebuttals, Agency responses to rebuttals, etc.) for this pesticide.

Further, in some cases, differences may be noted between the RED chapters and the Agency's comprehensive reports on the hazard identification information and safety factors for all organophosphates. In these cases, information in the comprehensive reports is the most current and will, barring the submission of more data that the Agency finds useful, be used in the risk assessments.



Jack Housenger, Acting Director
Special Review and Reregistration
Division



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

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OFFICE OF
PREVENTION, PESTICIDES, AND
TOXIC SUBSTANCES

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MEMORANDUM

OPP PUBLIC DOCKET

SUBJECT: Dietary Exposure Analysis for Phorate in Support of the Reregistration Eligibility Decision.

FROM: Brian Steinwand *(b)*
Dietary Risk Evaluation Section
Science Analysis Branch/HED (7509C)

Through: Elizabeth Doyle, Section Head *E. a. Doyle*
Dietary Risk Evaluation Section
SAB/Health Effects Division

TO: Mike Metzger, Chief
Risk Characterization Analysis Branch
Health Effects Division (7509C) *W. Bunn*

Action Requested

Provide a dietary exposure analysis to estimate the chronic dietary exposure and risk from phorate for uses which are being supported through reregistration.

Discussion

Toxicological Endpoint:

The Reference Dose (RfD) used in the analysis is 0.0005 mg/kg bwt/day, based on a NOEL of 0.05 mg/kg bwt/day from a one year dog feeding study that demonstrated brain cholinesterase inhibition, slight tremors in both sexes and marginal inhibition of body weight gain in males as an endpoint (See IRIS). An uncertainty factor of 100 was applied. The RfD value has been approved by the HED (5/5/88) and EPA (9/23/93) RfD committees. Phorate is classified as a Group E carcinogen by the Carcinogenicity Peer Review Committee.

No endpoint was identified that indicated any acute dietary concern (See LTL meeting minutes, 1/31/96).

(1)

Residue Information

Tolerances for phorate residues in/on raw agricultural and animal commodities are expressed in terms of phorate and its cholinesterase-inhibiting metabolites and are published in 40 CFR §180.206 and in feed at 186.4750. The available data support the established tolerances on coffee, cottonseed, peanuts, sugar beets, and wheat. For the purposes of this analysis, the tolerances for beans (succulent and dried) was reassessed from 0.1 ppm to 0.05 ppm, corn grain and sweet corn from 0.1 ppm to 0.05 ppm, hops from 0.5 ppm to 2.0 ppm, potatoes from 0.5 ppm to 0.2 ppm, sorghum from 0.1 ppm to 0.05 ppm, soybeans from 0.01 ppm to 0.05 ppm, and sugarcane from 0.1 ppm to 0.05 ppm.

The established tolerances for milk, eggs, and the fat, meat, and meat byproducts of cattle, goats, hogs, horses, poultry should be revoked as CBRS has determined that these represent a 180.6(a)(3) situation and the tolerances need not be established. CBRS also recommends to revoke the established tolerances on barley, lettuce, rice and tomatoes as there are currently no registered uses of phorate on these commodities (See memo, D. Miller, 1/17/96).

Results

A summary of the residue information considered in this analysis is attached as Table 1. A DRES chronic exposure analysis was performed using tolerance level residues and 100 percent crop treated information to estimate the Theoretical Maximum Residue Contribution (TMRC) for the general population and 22 subgroups. Percent crop treated and anticipated residue data were used to calculate the Anticipated Residue Concentration (ARC) for those same population subgroups for certain commodities. Summaries of the TMRCs, ARCs and their representations as percentages of the Reference Dose (RfD) are included as Table 2 and 3. A summary of the residue information and the associated ARCs using the recommended tolerance increases and or decreases and RAC revocations are attached as Table 4, 5 and 6.

Existing tolerances (See table 3) result in an ARC which represents 115% of the RfD for the U.S. general population. The highest subgroup, non-nursing infants (<1 year old) occupies 349% of the RfD. Incorporating the recommendations of CBRS (See memo, D. Miller, 1/17/96) results in an ARC of 15.5% for the U.S. general population, while the highest subgroup non-nursing infants changes to children (1-6 years old) and occupies 31.3% of the RfD.

The chronic analysis for phorate is not a worst case estimate of dietary exposure with all residues at tolerance level and 100 percent of the commodities assumed to be treated with phorate. This analysis has been refined, using percent crop treated and anticipated residue information for some commodities, to give a more accurate estimate of the dietary risk from phorate. Based on the risk estimates calculated in this analysis, it appears that chronic dietary risk from the uses recommended through reregistration, is not of serious concern.

Attachments

cc: DRES; Caswell 660; RCAB; CBRS II (D. Miller)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 660

DATE: 02/05/96

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Phorate (Thimet) Caswell #660 CAS No. 298-02-2 A.I. CODE: 057201 CFR No. 180.206	1yr feeding-dog NOEL= 0.0500 mg/kg LEL= 0.00 ppm ONCO: E (RfD/PR Committee)	Brain ChE inhibition; slight tremors in M&F, marginal inhibition of body weight gain in M. No evidence of carcinog- enicity in rats or mice.	ADI UF -->100 OPP RfD= 0.000500 EPA RfD= 0.000000	No data gaps.	WHO reviewed 1985 HEP reviewed 06/13/86 EPA deferred 08/05/86 HEP reviewed 05/05/88 EPA deferred 07/20/88 RfD/PR reviewed 09/23/93

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
07002AA	COFFEE	21 COOKED-NFS	OE2391	P 0.020000	0.020000			0.020000
08020AA	HOPS	21 COOKED-NFS	9F0809	P 0.500000	0.500000			0.010000
11005AA	TOMATOES-WHOLE	10 RAW-FRESH OR NFS	8F0723	P 0.100000	0.100000			0.010000
11005AA	TOMATOES-WHOLE	21 COOKED-NFS	8F0723	P 0.100000	0.100000			0.010000
11005AA	TOMATOES-WHOLE	31 COOKED-FRESH OR CANNED	8F0723	P 0.100000	0.100000			0.010000
11005JA	TOMATOES-JUICE	10 RAW-FRESH OR NFS	8F0723	P 0.100000	0.100000			0.010000
11005JA	TOMATOES-JUICE	21 COOKED-NFS	8F0723	P 0.100000	0.100000			0.010000
11005RA	TOMATOES-PUREE	10 RAW-FRESH OR NFS	8F0723	P 0.100000	0.100000			0.010000
11005RA	TOMATOES-PUREE	21 COOKED-NFS	8F0723	P 0.100000	0.100000			0.010000
11005RA	TOMATOES-PUREE	31 COOKED-FRESH OR CANNED	8F0723	P 0.100000	0.100000			0.010000
11005RA	TOMATOES-PUREE	32 COOKED-FRESH OR CANNED-BAKED	8F0723	P 0.100000	0.100000			0.010000
11005RA	TOMATOES-PUREE	51 COOKED-CANNED	8F0723	P 0.100000	0.100000			0.010000
11005TA	TOMATOES-PASTE	21 COOKED-NFS	8F0723	P 0.100000	0.100000			0.010000
11005TA	TOMATOES-PASTE	22 COOKED-FRESH-BAKED	8F0723	P 0.100000	0.100000			0.010000
11005TA	TOMATOES-PASTE	31 COOKED-FRESH OR CANNED	8F0723	P 0.100000	0.100000			0.010000
11005UA	TOMATOES-CATSUP	21 COOKED-NFS	8F0723	P 0.100000	0.100000			0.010000
13013AA	LETUCE-LEAFY	10 RAW-FRESH OR NFS	7F0521	P 0.100000	0.100000			0.010000
13020AA	LETUCE-UNSPEC	10 RAW-FRESH OR NFS	7F0521	P 0.100000	0.100000			0.010000
13045AA	LETUCE-HEAD	10 RAW-FRESH OR NFS	7F0521	P 0.100000	0.100000			0.010000
13045AA	LETUCE-HEAD	21 COOKED-NFS	7F0521	P 0.100000	0.100000			0.010000
14013AA	POTATO(WH)-WHOLE	10 RAW-FRESH OR NFS	8F0673	P 0.500000	0.500000			0.145000
14013AA	POTATO(WH)-WHOLE	21 COOKED-NFS	8F0673	P 0.500000	0.500000			0.145000
14013AA	POTATO(WH)-WHOLE	22 COOKED-FRESH-BAKED	8F0673	P 0.500000	0.500000			0.145000
14013AB	POTATO(WH)-UNSP	22 COOKED-FRESH-BAKED	8F0673	P 0.500000	0.500000			0.145000
14013AC	POTATO(WH)-PULP	21 COOKED-NFS	8F0673	P 0.500000	0.500000			0.145000
14013AC	POTATO(WH)-PULP	22 COOKED-FRESH-BAKED	8F0673	P 0.500000	0.500000			0.145000
14013AC	POTATO(WH)-PULP	23 COOKED-FRESH-BOILED	8F0673	P 0.500000	0.500000			0.145000
14013AC	POTATO(WH)-PULP	25 COOKED-FRESH-FRIED	8F0673	P 0.500000	0.500000			0.145000
14013DA	POTATO(WH)-DRY	10 RAW-FRESH OR NFS	8F0673	P 0.500000	0.500000			0.145000
14013DA	POTATO(WH)-DRY	31 COOKED-FRESH OR CANNED	8F0673	P 0.500000	0.500000			0.145000
14013HA	POTATO(WH)-PEEL	22 COOKED-FRESH-BAKED	8F0673	P 0.500000	0.500000			0.145000
15001AA	BEANS-DRY-GRN NO 00	NOT SPECIFIED (NO CONSUMPTION)	8F0727	P 0.100000	0.100000			0.002000
15001AB	BEANS-DRY-KIDNEY	21 COOKED-NFS	8F0727	P 0.100000	0.100000			0.002000
15001AB	BEANS-DRY-KIDNEY	31 COOKED-FRESH OR CANNED	8F0727	P 0.100000	0.100000			0.002000
15001AC	BEANS-DRY-LIMA	21 COOKED-NFS	8F0727	P 0.100000	0.100000			0.002000
15001AD	BEANS-DRY-NAVY	21 COOKED-NFS	8F0727	P 0.100000	0.100000			0.002000
15001AD	BEANS-DRY-NAVY	31 COOKED-FRESH OR CANNED	8F0727	P 0.100000	0.100000			0.002000
15001AE	BEANS-DRY-OTHER	21 COOKED-NFS	8F0727	P 0.100000	0.100000			0.002000
15001AE	BEANS-DRY-OTHER	25 COOKED-FRESH-FRIED	8F0727	P 0.100000	0.100000			0.002000
15001AE	BEANS-DRY-OTHER	31 COOKED-FRESH OR CANNED	8F0727	P 0.100000	0.100000			0.002000

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 660

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CHEMICAL Phorate (Thimet) Caswell #660 CAS No. 298-02-2 A.I. CODE: 057201 CFR No. 180.206	STUDY TYPE 1yr feeding-dog NOEL= 0.0500 mg/kg LEL= 0.00 ppm	EFFECTS Brain ChE inhibition: slight tremors in M&F, marginal inhibition of body weight gain in M. No evidence of carcinogenic- icity in rats or mice.	REFERENCE DOSES ADI UF -->100 OPP RfD= 0.000500 EPA RfD= 0.000000	DATA GAPS/COMMENTS No data gaps.	STATUS WHO reviewed 06/13/86 HED reviewed 08/05/86 EPA deferred 05/05/88 HED reviewed 05/05/88 EPA deferred 07/20/88 RfD/PR reviewed 09/23/93
15001AF	BEANS-DRY-PINTO	21 COOKED-NFS	8F0727 P 0.100000	0.100000	2.00 0.002000
15002AA	BEANS-SUCC-LIMA	10 RAW-FRESH OR NFS	8F0727 P 0.100000	0.100000	6.00 0.006000
15002AA	BEANS-SUCC-LIMA	21 COOKED-NFS	8F0727 P 0.100000	0.100000	6.00 0.006000
15003AA	BEANS-SUCC-GREEN	21 COOKED-NFS	8F0727 P 0.100000	0.100000	6.00 0.006000
15003AB	BEANS-SUCC-OTH	10 RAW-FRESH OR NFS	8F0727 P 0.100000	0.100000	6.00 0.006000
15003AB	BEANS-SUCC-OTH	21 COOKED-NFS	8F0727 P 0.100000	0.100000	6.00 0.006000
15003AC	BEANS-SUCC-WAX	21 COOKED-NFS	8F0727 P 0.100000	0.100000	6.00 0.006000
15005AA	CORN, SWEET	10 RAW-FRESH OR NFS	7F0521 P 0.100000	0.100000	5.00 0.005000
15005AA	CORN, SWEET	21 COOKED-NFS	7F0521 P 0.100000	0.100000	5.00 0.005000
15005AA	CORN, SWEET	31 COOKED-FRESH OR CANNED	7F0521 P 0.100000	0.100000	12.00 0.012000
15006AA	PEANUTS-WHOLE	10 RAW-FRESH OR NFS	NOPE# NOPE# NOPE# NOPE#	P 0.100000 P 0.100000 P 0.100000 P 0.100000	12.00 0.012000
15006AA	PEANUTS-WHOLE	21 COOKED-NFS	8F0727 P 0.100000	0.100000	12.00 0.012000
15006AA	PEANUTS-WHOLE	22 COOKED-FRESH-BAKED	8F0727 P 0.100000	0.100000	12.00 0.012000
15013AA	MUNG BEANS	10 RAW-FRESH OR NFS	8F0727 P 0.100000	0.100000	6.00 0.006000
15013AA	MUNG BEANS	21 COOKED-NFS	8F0727 P 0.100000	0.100000	6.00 0.006000
15022AA	BEANS-DRY-BROAD	00 NOT SPECIFIED (NO CONSUMPTION)	8F0727 P 0.100000	0.100000	2.00 0.002000
15022AB	BEANS-SUCC-BROAD	00 NOT SPECIFIED (NO CONSUMPTION)	8F0727 P 0.100000	0.100000	6.00 0.006000
15023AA	BEANS-DRY-PIGEON	21 COOKED-NFS	8F0727 P 0.100000	0.100000	2.00 0.002000
15027AA	BEANS-UNSPEC	21 COOKED-NFS	8F0727 P 0.100000	0.100000	6.00 0.006000
15029AA	SOYBEAN-SPROUTED	00 NOT SPECIFIED (NO CONSUMPTION)	NOPE# NOPE# NOPE# NOPE#	P 0.100000 P 0.100000 P 0.100000 P 0.100000	1.00 0.001000
15030AA	BEANS-DRY-HYAC	00 NOT SPECIFIED (NO CONSUMPTION)	8F0727 P 0.100000	0.100000	2.00 0.002000
15030AB	BEANS-SUCC-HYAC	00 NOT SPECIFIED (NO CONSUMPTION)	8F0727 P 0.100000	0.100000	6.00 0.006000
15031AA	BLKEY PEAS-DRY	21 COOKED-NFS	8F0727 P 0.100000	0.100000	2.00 0.002000
15032AA	BEANS-DRY	31 COOKED-FRESH OR CANNED	8F0727 P 0.100000	0.100000	2.00 0.002000
15032AA	BEANS-DRY	31 COOKED-NFS	8F0727 P 0.100000	0.100000	1.00 0.001000
24001AA	BARLEY	21 COOKED-NFS	7F0521 P 0.100000	0.100000	2.00 0.002000
24002AA	CORN, GRAIN-ENDO	10 RAW-FRESH OR NFS	7F0521 P 0.100000	0.100000	2.00 0.002000
24002EA	CORN, GRAIN-ENDO	21 COOKED-NFS	7F0521 P 0.100000	0.100000	2.00 0.002000
24002EA	CORN, GRAIN-ENDO	22 COOKED-FRESH-BAKED	7F0521 P 0.100000	0.100000	2.00 0.002000
24002EA	CORN, GRAIN-ENDO	23 COOKED-FRESH-BOILED	7F0521 P 0.100000	0.100000	2.00 0.002000
24002HA	CORN, GRAIN-BRAN	00 NOT SPECIFIED (NO CONSUMPTION)	7F0521 P 0.100000	0.100000	2.00 0.002000
24002SA	CORN SUGAR	10 RAW-FRESH OR NFS	7F0521 P 0.100000	0.100000	2.00 0.002000
24002SA	CORN SUGAR	21 COOKED-NFS	7F0521 P 0.100000	0.100000	2.00 0.002000
24002SA	CORN SUGAR	22 COOKED-FRESH-BAKED	7F0521 P 0.100000	0.100000	1.00 0.010000
24004AA	RICE-ROUGH	21 COOKED-NFS	7F0521 P 0.100000	0.100000	10.00 0.010000
24004AA	RICE-ROUGH	23 COOKED-FRESH-BAKED	7F0521 P 0.100000	0.100000	10.00 0.010000
24004AB	RICE-MILLED	21 COOKED-NFS	7F0521 P 0.100000	0.100000	10.00 0.010000
24004AB	RICE-MILLED	22 COOKED-FRESH-BAKED	7F0521 P 0.100000	0.100000	10.00 0.010000
24004AB	RICE-MILLED	23 COOKED-FRESH-BOILED	7F0521 P 0.100000	0.100000	10.00 0.010000
24004AB	RICE-MILLED	31 COOKED-FRESH OR CANNED	7F0521 P 0.100000	0.100000	10.00 0.010000

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 660

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Phorate (Thimet) Caswell #660 CAS No. 298-02-2 A.I. CODE: 057201 CFR No. 180.206	1yr feeding- dog NOEL= 0.0500 mg/kg LEL= 0.2500 mg/kg ONCDO: E (RD/PR Committee)	Brain ChE inhibition; slight tremors in M&F, marginal inhibition of body weight gain in M. No evidence of carcinogenicity in rats or mice.	ADI UF -->100 OPP RfD= 0.000500 EPA RfD= 0.000000	RfD Pending RAC approval of RAF ChE report.	WHO reviewed 1985 HED reviewed 06/13/86 EPA deferred 08/05/86 HED reviewed 05/05/88 EPA deferred 07/20/88 RfD/PR reviewed 09/23/93

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
24006AA	SORGHUM	00 NOT SPECIFIED (NO CONSUMPTION)	8F0723	P 0.100000	0.100000			1.00
24007AA	WHEAT - ROUGH	10 RAW-FRESH OR NFS	0F0938	P 0.050000	0.050000			1.00
24007AA	WHEAT - ROUGH	21 COOKED-NFS	0F0938	P 0.050000	0.050000			1.00
24007AA	WHEAT - ROUGH	22 COOKED-FRESH-BAKED	0F0938	P 0.050000	0.050000			1.00
24007AA	WHEAT - ROUGH	23 COOKED-FRESH-BOILED	0F0938	P 0.050000	0.050000			1.00
24007AA	WHEAT - GERM	10 RAW-FRESH OR NFS	0F0938	P 0.050000	0.050000			1.00
24007GA	WHEAT - GERM	22 COOKED-FRESH-BAKED	0F0938	P 0.050000	0.050000			1.00
24007HA	WHEAT - BRAN	10 RAW-FRESH OR NFS	0F0938	P 0.050000	0.050000			1.00
24007HA	WHEAT - BRAN	21 COOKED-NFS	0F0938	P 0.050000	0.050000			1.00
24007HA	WHEAT - BRAN	22 COOKED-FRESH-BAKED	0F0938	P 0.050000	0.050000			1.00
24007WA	WHEAT - FLOUR	10 RAW-FRESH OR NFS	0F0938	P 0.050000	0.050000			1.00
24007WA	WHEAT - FLOUR	21 COOKED-NFS	0F0938	P 0.050000	0.050000			1.00
24007WA	WHEAT - FLOUR	22 COOKED-FRESH-BAKED	0F0938	P 0.050000	0.050000			1.00
24007WA	WHEAT - FLOUR	25 COOKED-FRESH-FRIED	0F0938	P 0.050000	0.050000			1.00
24007WA	WHEAT - FLOUR	10 RAW-FRESH OR NFS	378	P 0.300000	0.300000			3.00
25002SA	BEET SUGAR	21 COOKED-NFS	378	P 0.300000	0.300000			3.00
25002SA	BEET SUGAR	22 COOKED-FRESH-BAKED	378	P 0.300000	0.300000			3.00
25002SA	BEET SUGAR	31 COOKED-FRESH OR CANNED	378	P 0.300000	0.300000			3.00
25002SA	BEET SUGAR	10 RAW-FRESH OR NFS	8F0723	P 0.100000	0.100000			11.00
25003SA	CANE SUGAR	21 COOKED-NFS	8F0723	P 0.100000	0.100000			11.00
25003SA	CANE SUGAR	22 COOKED-FRESH-BAKED	8F0723	P 0.100000	0.100000			11.00
25003SA	CANE SUGAR	31 COOKED-FRESH OR CANNED	8F0723	P 0.100000	0.100000			11.00
25003SB	SUGAR-MOLASSES	10 RAW-FRESH OR NFS	8F0723	P 0.100000	0.100000			11.00
25003SB	SUGAR-MOLASSES	21 COOKED-NFS	8F0723	P 0.100000	0.100000			11.00
25003SB	SUGAR-MOLASSES	22 COOKED-FRESH-BAKED	8F0723	P 0.100000	0.100000			11.00
25003SB	SUGAR-MOLASSES	31 COOKED-FRESH OR CANNED	8F0723	P 0.100000	0.100000			11.00
26011AA	GUAR BEANS	00 NOT SPECIFIED (NO CONSUMPTION)	8F0727	P 0.100000	0.100000			6.00
27002AA	CORN, GRAIN-OIL	18 PROCESSED OIL	7F0521	P 0.100000	0.100000			2.00
27003AA	COTTONSEED-OIL	18 PROCESSED OIL	0F0938	P 0.050000	0.050000			6.00
27003HA	COTTONSEED-MEAL	18 PROCESSED OIL	0F0938	P 0.050000	0.050000			6.00
27007AA	PEANUTS-OIL	18 PROCESSED OIL	NOPET#	P 0.100000	0.100000			12.00
27010AA	SOYBEANS-OIL	18 PROCESSED OIL	NOPET#	P 0.100000	0.100000			1.00
28023AA	SOYBEANS-UNSPEC	21 COOKED-NFS	NOPET#	P 0.100000	0.100000			1.00
28023AB	SOYBEANS-DRY	10 RAW-FRESH OR NFS	NOPET#	P 0.100000	0.100000			1.00
28023AB	SOYBEANS-DRY	21 COOKED-NFS	NOPET#	P 0.100000	0.100000			1.00
28023AB	SOYBEANS-DRY	23 COOKED-FRESH-BOILED	NOPET#	P 0.100000	0.100000			1.00
28023AB	SOYBEANS-DRY	25 COOKED-FRESH-FRIED	NOPET#	P 0.100000	0.100000			1.00
28023AB	SOYBEANS-DRY	31 COOKED-FRESH OR CANNED	NOPET#	P 0.100000	0.100000			1.00
28023VA	SOY-FFL, FULL FAT	21 COOKED-NFS	NOPET#	P 0.100000	0.100000			1.00
28023VA	SOY-FFL, FULL FAT	22 COOKED-FRESH-BAKED	NOPET#	P 0.100000	0.100000			1.00

ANTICIPATED RESIDUE INFORMATION FOR CASHELL NUMBER 660

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	WHO reviewed 1985 HED reviewed 06/13/86 EPA deferred 08/05/86 HED reviewed 05/05/88 EPA deferred 07/20/88 RfD/PR reviewed 09/23/93	STATUS
			ADI	UF -->100 OPP RfD= 0.000500 EPA RfD= 0.000000			
Phorate (Thimet) Caswell #660 CAS No. 298-02-2 A.I. CODE: 057201 CFR No. 180.206	1yr feeding- dog NOEL = 0.0500 mg/kg LEL = 0.00 ppm CNCI: E (RfD/PR Committee)	Brain ChE inhibition; slight tremors in M&F, marginal inhibition of body weight gain in M. No evidence of carcinog- enicity in rats or mice.			RfD Pending RAC approval of RAF CHE report.		

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)	
								EFFECTS	DATA GAPS/COMMENTS
28023WA	SOY-FAT, FULL FAT	31 COOKED-FRESH OR CANNED	NOPE#	P 0.100000	0.100000		1.00	0.001000	
28023WB	SOY-FAT, LOW FAT	21 COOKED-NFS	NOPE#	P 0.100000	0.100000		1.00	0.001000	
28023WC	SOY-FAT, DEFAT	10 RAW-FRESH OR NFS	NOPE#	P 0.100000	0.100000		1.00	0.001000	
28023XC	SOY-FAT, DEFAT	21 COOKED-NFS	NOPE#	P 0.100000	0.100000		1.00	0.001000	
28023WC	SOY-FAT, DEFAT	22 COOKED-FRESH-BAKED	NOPE#	P 0.100000	0.100000		1.00	0.001000	
28023WC	SOY-FAT, DEFAT	51 COOKED-CANNED	NOPE#	P 0.100000	0.100000		1.00	0.001000	
28023WC	SOY-FAT, DEFAT	53 COOKED-CANNED-BOILED	8F0673	P 0.020000	0.020000		100.00	0.020000	
500000B	MILK-NON-FAT SOL	10 RAW-FRESH OR NFS	8F0673	P 0.020000	0.020000		100.00	0.020000	
500000B	MILK-NON-FAT SOL	21 COOKED-NFS	8F0673	P 0.020000	0.020000		100.00	0.020000	
500000B	MILK-NON-FAT SOL	51 COOKED-CANNED	8F0673	P 0.020000	0.020000		100.00	0.020000	
50000FA	MILK-FAT SOLIDS	10 RAW-FRESH OR NFS	8F0673	P 0.020000	0.020000		100.00	0.020000	
50000FA	MILK-FAT SOLIDS	21 COOKED-NFS	8F0673	P 0.020000	0.020000		100.00	0.020000	
50000FA	MILK-FAT SOLIDS	51 COOKED-CANNED	8F0673	P 0.020000	0.020000		100.00	0.020000	
50000SA	MILK SUG (LACT)	21 COOKED-NFS	8F0673	P 0.020000	0.020000		100.00	0.020000	
50000SA	MILK SUG (LACT)	51 COOKED-CANNED	8F0673	P 0.020000	0.020000		100.00	0.020000	
53001BA	BEEF MEAT BYP	21 COOKED-NFS	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001BA	BEEF MEAT BYP	26 COOKED-FRESH-PICKLED, CURED	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001BB	BEEF-OTH ORGAN	21 COOKED-NFS	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001BB	BEEF-OTH ORGAN	51 COOKED-CANNED	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001DA	BEEF-DRIED	21 COOKED-NFS	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001FA	BEEF-FAT	10 RAW-FRESH OR NFS	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001FA	BEEF-FAT	21 COOKED-NFS	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001FA	BEEF-FAT	22 COOKED-FRESH-BAKED	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001FA	BEEF-FAT	23 COOKED-FRESH-BOILED	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001FA	BEEF-FAT	24 COOKED-FRESH-BROILED	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001FA	BEEF-FAT	25 COOKED-FRESH-FRIED	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001KA	BEEF-KIDNEY	21 COOKED-NFS	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001LA	BEEF-LIVER	25 COOKED-FRESH-FRIED	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001LA	BEEF-LIVER	31 COOKED-FRESH OR CANNED	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001MA	BEEF-LEAN	10 RAW-FRESH OR NFS	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001MA	BEEF-LEAN	21 COOKED-NFS	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001MA	BEEF-LEAN	22 COOKED-FRESH-BAKED	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001MA	BEEF-LEAN	23 COOKED-FRESH-BOILED	8F0673	P 0.050000	0.050000		100.00	0.050000	
53001MA	BEEF-LEAN	24 COOKED-FRESH-BROILED	8F0673	P 0.050000	0.050000		100.00	0.050000	
53002BA	GOAT-MEAT BYP	00 NOT SPECIFIED (NO CONSUMPTION)	8F0673	P 0.050000	0.050000		100.00	0.050000	
53002BB	GOAT-OTH ORGAN	00 NOT SPECIFIED (NO CONSUMPTION)	8F0673	P 0.050000	0.050000		100.00	0.050000	
53002FA	GOAT-FAT	23 COOKED-FRESH-BOILED	8F0673	P 0.050000	0.050000		100.00	0.050000	
53002FA	GOAT-FAT	25 COOKED-FRESH-FRIED	8F0673	P 0.050000	0.050000		100.00	0.050000	
53002KA	GOAT-KIDNEY	00 NOT SPECIFIED (NO CONSUMPTION)	8F0673	P 0.050000	0.050000		100.00	0.050000	
53002LA	GOAT-LIVER	00 NOT SPECIFIED (NO CONSUMPTION)	8F0673	P 0.050000	0.050000		100.00	0.050000	

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ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 660

CHEMICAL	STUDY TYPE	REFERENCE DOSES			WHO reviewed 1985 HED reviewed 06/13/86 EPA deferred 08/05/86 HED reviewed 05/05/88 EPA deferred 07/29/88 RfD/PR reviewed 09/23/93
		EFFECTS	ADI	UF	
Phorate (Thimet) Caswell #660 CAS No. 298-02-2 AI. CODE: 057201 CFR No. 180.206	1yr feeding- dog NOEL= 0.0500 mg/kg 0.00 ppm LEL= 0.2500 mg/kg 0.00 ppm ONCO: E (RfD/PR Committee)	Brain ChE inhibition; slight tremors in M&F, marginal inhibition of body weight gain in M. No evidence of carcinog- enicity in rats or mice.	OPP RfD= 0.000500 EPA RfD= 0.000000	-->100	No data gaps.

FOOD CODE	FOOD	FOOD FORM	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
PET.#			TOLERANCE (ppm)			
53002MA	GOAT-LEAN	23 COOKED-FRESH-BOILED	8F0673	P 0.050000	0.050000	0.050000
53002MA	GOAT-LEAN	25 COOKED-FRESH-FRIED	8F0673	P 0.050000	0.050000	0.050000
53003AA	HORSE	00 NOT SPECIFIED (NO CONSUMPTION)	8F0673	P 0.050000	0.050000	0.050000
53005BA	SHEEP-MEAT BYP	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
53005BB	SHEEP-OTH ORGAN	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
53005FA	SHEEP-FAT	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
53005KA	SHEEP-KIDNEY	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
53005LA	SHEEP-LIVER	00 NOT SPECIFIED (NO CONSUMPTION)	8F0673	P 0.050000	0.050000	0.050000
53005MA	SHEEP-LEAN	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
53005MA	SHEEP-LEAN	31 COOKED-FRESH OR CANNED	8F0673	P 0.050000	0.050000	0.050000
53006BA	PORK-MEAT BYP	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
53006BB	PORK-OTH ORGAN	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
53006BB	PORK-OTH ORGAN	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	8F0673	P 0.050000	0.050000	0.050000
53006BB	PORK-OTH ORGAN	10 RAW-FRESH OR NFS	8F0673	P 0.050000	0.050000	0.050000
53006FA	PORK-FAT	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
53006FA	PORK-FAT	23 COOKED-FRESH-BOILED	8F0673	P 0.050000	0.050000	0.050000
53006FA	PORK-FAT	25 COOKED-FRESH-FRIED	8F0673	P 0.050000	0.050000	0.050000
53006FA	PORK-FAT	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	8F0673	P 0.050000	0.050000	0.050000
53006FA	PORK-KIDNEY	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
53006LA	PORK-LIVER	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
53006LA	PORK-LIVER	25 COOKED-FRESH-FRIED	8F0673	P 0.050000	0.050000	0.050000
53006FA	PORK-LEAN	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
53006KA	PORK-LEAN	25 COOKED-FRESH-FRIED	8F0673	P 0.050000	0.050000	0.050000
53006LA	PORK-LEAN	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	8F0673	P 0.050000	0.050000	0.050000
53006LA	PORK-LEAN	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
53006MA	PORK-LEAN	25 COOKED-FRESH-FRIED	8F0673	P 0.050000	0.050000	0.050000
53006MA	PORK-LEAN	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	8F0673	P 0.050000	0.050000	0.050000
53006LA	TURKEY-BYP	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
55008BA	TURKEY-BYP	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	8F0673	P 0.050000	0.050000	0.050000
55008BA	TURKEY ORGAN	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
55008LA	TURKEY ORGAN	25 COOKED-FRESH-FRIED	8F0673	P 0.050000	0.050000	0.050000
55008LA	TURKEY W/O SKIN	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
55008MA	TURKEY W/O SKIN	31 COOKED-FRESH OR CANNED	8F0673	P 0.050000	0.050000	0.050000
55008MA	TURKEY W/O SKIN	62 COOKED-FRESH OR FROZEN-BAKED	8F0673	P 0.050000	0.050000	0.050000
55008LA	TURKEY+SKIN	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
55008MB	TURKEY+SKIN	25 COOKED-FRESH-FRIED	8F0673	P 0.050000	0.050000	0.050000
55008MB	TURKEY-UNSPEC	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
55008MC	POULTRY, OTH-BYP	00 NOT SPECIFIED (NO CONSUMPTION)	8F0673	P 0.050000	0.050000	0.050000
55013BA	POULTRY, ORGAN	25 COOKED-FRESH-FRIED	8F0673	P 0.050000	0.050000	0.050000
55013LA	POULTRY, OTHER	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
55013MA	EGGS-WHOLE	10 RAW-FRESH OR NFS	8F0673	P 0.050000	0.050000	0.050000
55014AA	EGGS-WHOLE	21 COOKED-NFS	8F0673	P 0.050000	0.050000	0.050000
55014AA	EGGS-WHOLE	22 COOKED-FRESH-BAKED	8F0673	P 0.050000	0.050000	0.050000

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 660

DATE: 02/05/96

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CHEMICAL Phorate (Thimer)	STUDY TYPE 1yr feeding-dog	EFFECTS NOEL= 0.0500 mg/kg LEL= 0.00 ppm LEL= 0.2500 mg/kg LEL= 0.00 ppm CNCO: E (RfD/PR Committee)	REFERENCE DOSES ADI UF -->100 OPP RfD= 0.000500 EPA RfD= 0.000000	DATA GAPS/COMMENTS No data gaps.	STATUS WHO reviewed 1985 HED reviewed 06/13/86 EPA deferred 08/05/86 HED reviewed 05/05/88 EPA deferred 07/20/88 RfD/PR reviewed 09/23/93
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FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
55014AA	EGGS-WHOLE	23 COOKED-FRESH-BOILED	8F0673	P 0.050000	0.050000		100.00	0.050000
55014AA	EGGS-WHOLE	25 COOKED-FRESH-FRIED	8F0673	P 0.050000	0.050000		100.00	0.050000
55014AB	EGGS-WHITE ONLY	10 RAW-FRESH OR NFS	8F0673	P 0.050000	0.050000		100.00	0.050000
55014AB	EGGS-WHITE ONLY	21 COOKED-NFS	8F0673	P 0.050000	0.050000		100.00	0.050000
55014AB	EGGS-WHITE ONLY	22 COOKED-FRESH-BAKED	8F0673	P 0.050000	0.050000		100.00	0.050000
55014AB	EGGS-WHITE ONLY	62 COOKED-FRESH OR FROZEN-BAKED	8F0673	P 0.050000	0.050000		100.00	0.050000
55014AB	EGGS-WHITE ONLY	81 COOKED-FROZEN	8F0673	P 0.050000	0.050000		100.00	0.050000
55014AC	EGGS-YOLK ONLY	10 RAW-FRESH OR NFS	8F0673	P 0.050000	0.050000		100.00	0.050000
55014AC	EGGS-YOLK ONLY	21 COOKED-NFS	8F0673	P 0.050000	0.050000		100.00	0.050000
55014AC	EGGS-YOLK ONLY	25 COOKED-FRESH-FRIED	8F0673	P 0.050000	0.050000		100.00	0.050000
55014AC	EGGS-YOLK ONLY	31 COOKED-FRESH OR CANNED	8F0673	P 0.050000	0.050000		100.00	0.050000
55015A	CHICKEN-BYP	00 NOT SPECIFIED (NO CONSUMPTION)	8F0673	P 0.050000	0.050000		100.00	0.050000
55015A	CHICKEN-ORGAN	21 COOKED-NFS	8F0673	P 0.050000	0.050000		100.00	0.050000
55015A	CHICKEN-ORGAN	25 COOKED-FRESH-FRIED	8F0673	P 0.050000	0.050000		100.00	0.050000
55015A	CHICKEN-ORGAN	26 COOKED-FRESH-PICKLED,CORNED,OR CURED	8F0673	P 0.050000	0.050000		100.00	0.050000
55015MA	CHICKEN-W/O SKIN	21 COOKED-NFS	8F0673	P 0.050000	0.050000		100.00	0.050000
55015MA	CHICKEN-W/O SKIN	22 COOKED-FRESH-BAKED	8F0673	P 0.050000	0.050000		100.00	0.050000
55015MA	CHICKEN-W/O SKIN	25 COOKED-FRESH-FRIED	8F0673	P 0.050000	0.050000		100.00	0.050000
55015MA	CHICKEN-W/O SKIN	31 COOKED-FRESH OR CANNED	8F0673	P 0.050000	0.050000		100.00	0.050000
55015MA	CHICKEN-W/O SKIN	53 COOKED-CANNED-BOILED	8F0673	P 0.050000	0.050000		100.00	0.050000
55015MB	CHICKEN+SKIN	21 COOKED-NFS	8F0673	P 0.050000	0.050000		100.00	0.050000
55015MB	CHICKEN+SKIN	25 COOKED-FRESH-FRIED	8F0673	P 0.050000	0.050000		100.00	0.050000

TOLERANCE ASSESSMENT SYSTEM ROUTINE CHRONIC ANALYSIS

DATE: 02/05/96

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CHEMICAL INFORMATION	
Phorate (Thimet)	Tyr feeding-dog
Cashwell #560	NOEL= 0.0500 mg/kg
CAS No. 298-02-2	0.00 ppm
A.I. CODE: 057201	LEL= 0.2500 mg/kg
CFR No. 180.206	0.00 ppm
ONCO: E (Rfd/PR Committee)	(Rfd/PR Committee)

STUDY TYPE		EFFECTS		REFERENCE DOSES		DATA GAPS/COMMENTS		STATUS	
Phorate (Thimet)	Tyr feeding-dog	Brain ChE inhibition; slight tremors in M&F, marginal inhibition of body weight gain in M.	No evidence of carcinogenicity in rats or mice.	ADI UF -->100 OPP RfD= 0.000500 EPA RfD= 0.000000	0.000500	No data gaps.		WHO reviewed 1985 HED reviewed 06/13/86 EPA deferred 08/05/86 HED reviewed 05/05/88 EPA deferred 07/20/88 Rfd/PR reviewed 09/23/93	

POPULATION SUBGROUP	TOTAL TMRC (MG/KG BODY WEIGHT/DAY)		NEW TMRC* OF RFD	DIFFERENCE AS PERCENT OF RFD	EFFECT OF ANTICIPATED RESIDUES	
	CURRENT TMRC*	NEW TMRC**			ARC	%RFD
U.S. POPULATION - 48 STATES	0.001523	0.001523	304.597000	0.000000	0.000577	115.45260
U.S. POPULATION - SPRING SEASON	0.001476	0.001476	295.288000	0.000000	0.000556	111.20720
U.S. POPULATION - SUMMER SEASON	0.001512	0.001512	302.391600	0.000000	0.000569	113.81140
U.S. POPULATION - FALL SEASON	0.001553	0.001553	310.699200	0.000000	0.000595	119.06540
U.S. POPULATION - WINTER SEASON	0.001541	0.001541	308.137600	0.000000	0.000589	117.71780
NORTHEAST REGION	0.001475	0.001475	295.055000	0.000000	0.000576	115.10020
NORTH CENTRAL REGION	0.001602	0.001602	320.313400	0.000000	0.000604	120.78200
SOUTHERN REGION	0.001504	0.001504	300.800000	0.000000	0.000551	110.14620
WESTERN REGION	0.001492	0.001492	298.399200	0.000000	0.000587	117.30440
HISPANICS	0.001710	0.001710	342.056000	0.000000	0.000684	136.74020
NON-HISPANIC WHITES	0.001521	0.001521	304.166400	0.000000	0.000574	114.72280
NON-HISPANIC BLACKS	0.001442	0.001442	288.486000	0.000000	0.000550	110.01820
NON-HISPANIC OTHERS	0.001407	0.001407	281.447000	0.000000	0.000578	115.59620
NURSING INFANTS (< 1 YEAR OLD)	0.000841	0.000841	168.288400	0.000000	0.000441	88.15680
NON-NURSING INFANTS (< 1 YEAR OLD)	0.003095	0.003095	618.903800	0.000000	0.001746	349.21480
FEMALES (13+ YEARS, PREGNANT)	0.001081	0.001081	216.178400	0.000000	0.000404	80.88720
FEMALES (13+ YEARS, NURSING	0.001232	0.001232	246.390200	0.000000	0.000476	95.12460
CHILDREN (1-6 YEARS OLD)	0.003290	0.003290	657.939200	0.000000	0.001339	267.89000
CHILDREN (7-12 YEARS OLD)	0.002364	0.002364	472.807800	0.000000	0.000902	180.30920
MALES (13-19 YEARS OLD)	0.001672	0.001672	334.333200	0.000000	0.000631	126.21680
FEMALES (13-19 YEARS OLD, NOT PREG. OR NURSING)	0.001373	0.001373	274.516200	0.000000	0.000502	100.46500
MALES (20 YEARS AND OLDER)	0.001200	0.001200	240.060800	0.000000	0.000432	86.49340
FEMALES (20 YEARS AND OLDER, NOT PREG. OR NURSING)	0.001026	0.001026	205.212000	0.000000	0.000368	73.55820

*Current TMRC does not include new or pending tolerances.

**New TMRC includes new, pending, and published tolerances.

Table 3

TOLERANCE ASSESSMENT SUMMARY FOR Phorate (Thimet)
USING ANTICIPATED RESIDUES
CASWELL #660

DATE: 02/05/96

ANALYSIS FOR POPULATION SUB-GROUP: U.S. POPULATION - 48 STATES

EXISTING ANTICIPATED RESIDUES (PUBLISHED ONLY)
RESULT IN AN ARC OF: 0.000577 MG/KG/DAY
THE EXISTING ARC IS EQUIVALENT TO: 115.453 % OF THE ADI.

NO NEW ANTICIPATED RESIDUES ARE IN THE FILE.

NO OTHER PENDING ANTICIPATED RESIDUES ARE IN THE FILE

ANALYSIS FOR POPULATION SUB-GROUP: NON-NURSING INFANTS (< 1 YEAR OLD)

EXISTING ANTICIPATED RESIDUES (PUBLISHED ONLY)
RESULT IN AN ARC OF: 0.001746 MG/KG/DAY
THE EXISTING ARC IS EQUIVALENT TO: 349.215 % OF THE ADI.

NO NEW ANTICIPATED RESIDUES ARE IN THE FILE.

NO OTHER PENDING ANTICIPATED RESIDUES ARE IN THE FILE

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 660

DATE: 02/05/96

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Phorate (Thimet) Caswell #660 CAS No. 298-02-2 A.I. CODE: 057201 CFR No. 180.206	1yr feeding- dog NOEL= 0.0500 mg/kg 0.00 ppm LEL= 0.2500 mg/kg 0.00 ppm ONCO: E (RfD/PR Committee)	Brain ChE inhibition; slight tremors in M&F, marginal inhibition of body weight gain in M. No evidence of carcinogenicity in rats or mice.	ADI UF -->100 OPP RfD= 0.000500 EPA RfD= 0.000000	No data gaps. RfD Pending RAC approval of RAF ChE report.	WHO reviewed 1985 HED reviewed 06/13/86 EPA deferred 08/05/86 HED reviewed 05/05/88 EPA deferred 07/20/88 RfD/PR reviewed 09/23/93

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
07002AA	COFFEE	21 COOKED-NFS	OE2391	P 0.020000	0.020000		100.00	0.020000
08020AA	HOPS	21 COOKED-NFS	9F0809	P 2.000000	2.000000		2.00	0.040000
14013AA	POTATO(WH)-WHOLE	10 RAW-FRESH OR NFS	8F0673	P 0.200000	0.200000		29.00	0.058000
14013AA	POTATO(WH)-WHOLE	21 COOKED-NFS	8F0673	P 0.200000	0.200000		29.00	0.058000
14013AA	POTATO(WH)-WHOLE	22 COOKED-FRESH-BAKED	8F0673	P 0.200000	0.200000		29.00	0.058000
14013AB	POTATO(WH)-UNSP	22 COOKED-FRESH-BAKED	8F0673	P 0.200000	0.200000		29.00	0.058000
14013AC	POTATO(WH)-PULP	21 COOKED-NFS	8F0673	P 0.200000	0.200000		29.00	0.058000
14013AC	POTATO(WH)-PULP	22 COOKED-FRESH-BAKED	8F0673	P 0.200000	0.200000		29.00	0.058000
14013AC	POTATO(WH)-PULP	23 COOKED-FRESH-BOILED	8F0673	P 0.200000	0.200000		29.00	0.058000
14013AC	POTATO(WH)-PULP	25 COOKED-FRESH-FRIED	8F0673	P 0.200000	0.200000		29.00	0.058000
14013DA	POTATO(WH)-DRY	10 RAW-FRESH OR NFS	8F0673	P 0.200000	0.200000		29.00	0.058000
14013DA	POTATO(WH)-DRY	31 COOKED-FRESH OR CANNED	8F0673	P 0.200000	0.200000		29.00	0.058000
14013HA	POTATO(WH)-PEEL	22/COOKED-FRESH-BAKED	8F0673	P 0.200000	0.200000		29.00	0.058000
15001AA	BEANS-DRY-GRT NO	00 NOT SPECIFIED (NO CONSUMPTION)	8F0727	P 0.050000	0.050000		2.00	0.001000
15001AB	BEANS-DRY-KIDNEY	21 COOKED-NFS	8F0727	P 0.050000	0.050000		2.00	0.001000
15001AB	BEANS-DRY-KIDNEY	31 COOKED-FRESH OR CANNED	8F0727	P 0.050000	0.050000		2.00	0.001000
15001AC	BEANS-DRY-LIMA	21 COOKED-NFS	8F0727	P 0.050000	0.050000		2.00	0.001000
15001AD	BEANS-DRY-NAVY	21 COOKED-NFS	8F0727	P 0.050000	0.050000		2.00	0.001000
15001AD	BEANS-DRY-NAVY	31 COOKED-FRESH OR CANNED	8F0727	P 0.050000	0.050000		2.00	0.001000
15001AE	BEANS-DRY-OTHER	21 COOKED-NFS	8F0727	P 0.050000	0.050000		2.00	0.001000
15001AE	BEANS-DRY-OTHER	25 COOKED-FRESH-FRIED	8F0727	P 0.050000	0.050000		2.00	0.001000
15001AE	BEANS-DRY-OTHER	31 COOKED-FRESH OR CANNED	8F0727	P 0.050000	0.050000		2.00	0.001000
15001AF	BEANS-DRY-PINTO	21 COOKED-NFS	8F0727	P 0.050000	0.050000		2.00	0.001000
15002AA	BEANS-SUCC-LIMA	10 RAW-FRESH OR NFS	8F0727	P 0.050000	0.050000		6.00	0.003000
15002AA	BEANS-SUCC-LIMA	21 COOKED-NFS	8F0727	P 0.050000	0.050000		6.00	0.003000
15003AA	BEANS-SUCC-GREEN	21 COOKED-NFS	8F0727	P 0.050000	0.050000		6.00	0.003000
15003AB	BEANS-SUCC-OTH	10 RAW-FRESH OR NFS	8F0727	P 0.050000	0.050000		6.00	0.003000
15003AB	BEANS-SUCC-OTH	21 COOKED-NFS	8F0727	P 0.050000	0.050000		6.00	0.003000
15003AC	BEANS-SUCC-WAX	21 COOKED-NFS	8F0727	P 0.050000	0.050000		5.00	0.002500
15005AA	CORN,SWEET	10 RAW-FRESH OR NFS	7F0521	P 0.050000	0.050000		5.00	0.002500
15005AA	CORN,SWEET	21 COOKED-NFS	7F0521	P 0.050000	0.050000		5.00	0.002500
15005AA	CORN,SWEET	31 COOKED-FRESH OR CANNED	7F0521	P 0.050000	0.050000		12.00	0.012000
15006AA	PEANUTS-WHOLE	10 RAW-FRESH OR NFS	NOPET#	P 0.100000	0.100000		12.00	0.012000
15006AA	PEANUTS-WHOLE	21 COOKED-NFS	NOPET#	P 0.100000	0.100000		12.00	0.012000
15006AA	PEANUTS-WHOLE	22 COOKED-FRESH-BAKED	NOPET#	P 0.100000	0.100000		6.00	0.003000
15013AA	MUNG BEANS	10 RAW-FRESH OR NFS	8F0727	P 0.050000	0.050000		6.00	0.003000
15013AA	MUNG BEANS	21 COOKED-NFS	8F0727	P 0.050000	0.050000		2.00	0.001000
15022AA	BEANS-DRY-BROAD	00 NOT SPECIFIED (NO CONSUMPTION)	8F0727	P 0.050000	0.050000		6.00	0.003000
15022AB	BEANS-SUCC-BROAD	00 NOT SPECIFIED (NO CONSUMPTION)	8F0727	P 0.050000	0.050000		2.00	0.001000
15023AA	BEANS-DRY-PIGEON	21 COOKED-NFS	8F0727	P 0.050000	0.050000		2.00	0.001000

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 660

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Phorate (Thimet) Caswell #660 CAS No. 298-02-2 A.I. CODE: 057201 CFR No. 180.206	1yr feeding- dog NOEL= 0.0500 mg/kg 0.00 ppm LEL= 0.2500 mg/kg 0.00 ppm ONCO: E (Rfd/PR Committee)	Brain ChE inhibition; slight tremors in M&F, marginal inhibition of body weight gain in M. No evidence of carcinogenic- icity in rats or mice.	ADI UF -->100 OPP Rfd= 0.000500 EPA Rfd= 0.000000	No data gaps. Rfd Pending RAC approval of RAF ChE report.	WHO reviewed 1985 HED reviewed 06/13/86 EPA deferred 08/05/86 HED reviewed 05/05/88 EPA deferred 07/20/88 Rfd/PR reviewed 09/23/93

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
15027AA	BEANS-UNSPEC	21 COOKED-NFS	8F0727	P 0.050000	0.050000		6.00	0.003000
15029AA	SOYBEAN-SPROUTED	00 NOT SPECIFIED (NO CONSUMPTION)	NOPET#	P 0.050000	0.050000		1.00	0.000500
15030AA	BEANS-DRY-HYAC	00 NOT SPECIFIED (NO CONSUMPTION)	8F0727	P 0.050000	0.050000		2.00	0.001000
15030AB	BEANS-SUCC-HYAC	00 NOT SPECIFIED (NO CONSUMPTION)	8F0727	P 0.050000	0.050000		6.00	0.003000
15031AA	BLKEYE PEAS-DRY	21 COOKED-NFS	8F0727	P 0.050000	0.050000		2.00	0.001000
15032AA	BEANS-DRY	21 COOKED-NFS	8F0727	P 0.050000	0.050000		2.00	0.001000
15032AA	BEANS-DRY	31 COOKED-FRESH OR CANNED	8F0727	P 0.050000	0.050000		2.00	0.001000
24002EA	CORN, GRAIN-ENDO	10 RAW-FRESH OR NFS	7F0521	P 0.050000	0.050000		2.00	0.001000
24002EA	CORN, GRAIN-ENDO	21 COOKED-NFS	7F0521	P 0.050000	0.050000		2.00	0.001000
24002EA	CORN, GRAIN-ENDO	22 COOKED-FRESH-BAKED	7F0521	P 0.050000	0.050000		2.00	0.001000
24002EA	CORN, GRAIN-ENDO	23 COOKED-FRESH-BOILED	7F0521	P 0.050000	0.050000		2.00	0.001000
24002HA	CORN, GRAIN-BRAN	00 NOT SPECIFIED (NO CONSUMPTION)	7F0521	P 0.050000	0.050000		2.00	0.001000
24002SA	CORN SUGAR	10 RAW-FRESH OR NFS	7F0521	P 0.050000	0.050000		2.00	0.001000
24002SA	CORN SUGAR	21 COOKED-NFS	7F0521	P 0.050000	0.050000		2.00	0.001000
24002SA	CORN SUGAR	22 COOKED-FRESH-BAKED	7F0521	P 0.050000	0.050000		1.00	0.000500
24006AA	SORGHUM	00 NOT SPECIFIED (NO CONSUMPTION)	8F0723	P 0.050000	0.050000		1.00	0.000500
24007AA	WHEAT-ROUGH	10 RAW-FRESH OR NFS	0F0938	P 0.050000	0.050000		1.00	0.000500
24007AA	WHEAT-ROUGH	21 COOKED-NFS	0F0938	P 0.050000	0.050000		1.00	0.000500
24007AA	WHEAT-ROUGH	22 COOKED-FRESH-BAKED	0F0938	P 0.050000	0.050000		1.00	0.000500
24007AA	WHEAT-ROUGH	23 COOKED-FRESH-BOILED	0F0938	P 0.050000	0.050000		1.00	0.000500
24007GA	WHEAT-GERM	10 RAW-FRESH OR NFS	0F0938	P 0.050000	0.050000		1.00	0.000500
24007GA	WHEAT-GERM	22 COOKED-FRESH-BAKED	0F0938	P 0.050000	0.050000		1.00	0.000500
24007HA	WHEAT-BRAN	10 RAW-FRESH OR NFS	0F0938	P 0.050000	0.050000		1.00	0.000500
24007HA	WHEAT-BRAN	21 COOKED-NFS	0F0938	P 0.050000	0.050000		1.00	0.000500
24007HA	WHEAT-BRAN	22 COOKED-FRESH-BAKED	0F0938	P 0.050000	0.050000		1.00	0.000500
24007WA	WHEAT-FLOUR	10 RAW-FRESH OR NFS	0F0938	P 0.050000	0.050000		1.00	0.000500
24007WA	WHEAT-FLOUR	21 COOKED-NFS	0F0938	P 0.050000	0.050000		1.00	0.000500
24007WA	WHEAT-FLOUR	22 COOKED-FRESH-BAKED	0F0938	P 0.050000	0.050000		1.00	0.000500
24007WA	WHEAT-FLOUR	25 COOKED-FRESH-FRIED	0F0938	P 0.050000	0.050000		3.00	0.009000
25002SA	BEET SUGAR	10 RAW-FRESH OR NFS	378	P 0.300000	0.300000		3.00	0.009000
25002SA	BEET SUGAR	21 COOKED-NFS	378	P 0.300000	0.300000		3.00	0.009000
25002SA	BEET SUGAR	22 COOKED-FRESH-BAKED	378	P 0.300000	0.300000		3.00	0.009000
25002SA	BEET SUGAR	31 COOKED-FRESH OR CANNED	378	P 0.300000	0.300000		11.00	0.005500
25003SA	CANE SUGAR	10 RAW-FRESH OR NFS	8F0723	P 0.050000	0.050000		11.00	0.005500
25003SA	CANE SUGAR	21 COOKED-NFS	8F0723	P 0.050000	0.050000		11.00	0.005500
25003SA	CANE SUGAR	22 COOKED-FRESH-BAKED	8F0723	P 0.050000	0.050000		11.00	0.005500
25003SA	CANE SUGAR	31 COOKED-FRESH OR CANNED	8F0723	P 0.050000	0.050000		11.00	0.005500
25003SB	SUGAR-MOLASSES	10 RAW-FRESH OR NFS	8F0723	P 0.050000	0.050000		11.00	0.005500
25003SB	SUGAR-MOLASSES	21 COOKED-NFS	8F0723	P 0.050000	0.050000		11.00	0.005500
25003SB	SUGAR-MOLASSES	22 COOKED-FRESH-BAKED	8F0723	P 0.050000	0.050000		11.00	0.005500

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 660

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Phorate (Thimet) Caswell #660 CAS No. 298-02-2 A.I. CODE: 057201 CFR No. 180.206	1yr feeding- dog NOEL= 0.0500 mg/kg 0.00 ppm LEL= 0.2500 mg/kg 0.00 ppm ONCO: E (RfD/PR Committee)	Brain ChE inhibition; slight tremors in M&F, marginal inhibition of body weight gain in M. No evidence of carcinogenicity in rats or mice.	ADI UF -->100 OPP RfD= 0.000500 EPA RfD= 0.000000	No data gaps. RfD Pending RAC approval of RAF ChE report.	WHO reviewed 1985 HED reviewed 06/13/86 EPA deferred 08/05/86 HED reviewed 05/05/88 EPA deferred 07/20/88 RfD/PR reviewed 09/23/93

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
25003SB	SUGAR-MOLASSES	31 COOKED-FRESH OR CANNED	8F0723	P 0.050000	0.050000		11.00	0.005500
26011AA	GUAR BEANS	00 NOT SPECIFIED (NO CONSUMPTION)	8F0727	P 0.050000	0.050000		6.00	0.003000
270020A	CORN, GRAIN-OIL	18 PROCESSED OIL	7F0521	P 0.050000	0.050000		2.00	0.001000
270030A	COTTONSEED-OIL	18 PROCESSED OIL	OF0938	P 0.050000	0.050000		6.00	0.003000
27003WA	COTTONSEED-MEAL	18 PROCESSED OIL	OF0938	P 0.050000	0.050000		6.00	0.003000
270070A	PEANUTS-OIL	18 PROCESSED OIL	NOPET#	P 0.100000	0.100000		12.00	0.012000
270100A	SOYBEANS-OIL	18 PROCESSED OIL	NOPET#	P 0.050000	0.050000		1.00	0.000500
28023AA	SOYBEANS-UNSPEC	21 COOKED-NFS	NOPET#	P 0.050000	0.050000		1.00	0.000500
28023AB	SOYBEANS-DRY	10 RAW-FRESH OR NFS	NOPET#	P 0.050000	0.050000		1.00	0.000500
28023AB	SOYBEANS-DRY	21 COOKED-NFS	NOPET#	P 0.050000	0.050000		1.00	0.000500
28023AB	SOYBEANS-DRY	23 COOKED-FRESH-BOILED	NOPET#	P 0.050000	0.050000		1.00	0.000500
28023AB	SOYBEANS-DRY	25 COOKED-FRESH-FRIED	NOPET#	P 0.050000	0.050000		1.00	0.000500
28023AB	SOYBEANS-DRY	31 COOKED-FRESH OR CANNED	NOPET#	P 0.050000	0.050000		1.00	0.000500
28023WA	SOY-FL, FULL FAT	21 COOKED-NFS	NOPET#	P 0.050000	0.050000		1.00	0.000500
28023WA	SOY-FL, FULL FAT	22 COOKED-FRESH-BAKED	NOPET#	P 0.050000	0.050000		1.00	0.000500
28023WA	SOY-FL, FULL FAT	31 COOKED-FRESH OR CANNED	NOPET#	P 0.050000	0.050000		1.00	0.000500
28023WB	SOY-FL, LOW FAT	21 COOKED-NFS	NOPET#	P 0.050000	0.050000		1.00	0.000500
28023WC	SOY-FL,DEFAT	10 RAW-FRESH OR NFS	NOPET#	P 0.050000	0.050000		1.00	0.000500
28023WC	SOY-FL,DEFAT	21 COOKED-NFS	NOPET#	P 0.050000	0.050000		1.00	0.000500
28023WC	SOY-FL,DEFAT	22 COOKED-FRESH-BAKED	NOPET#	P 0.050000	0.050000		1.00	0.000500
28023WC	SOY-FL,DEFAT	51 COOKED-CANNED	NOPET#	P 0.050000	0.050000		1.00	0.000500
28023WC	SOY-FL,DEFAT	53 COOKED-CANNED-BOILED	NOPET#	P 0.050000	0.050000		1.00	0.000500

TOLERANCE ASSESSMENT SYSTEM ROUTINE CHRONIC ANALYSIS

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CHEMICAL INFORMATION		STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Phorate (Thimet) Caswell #660 CAS No. 298-02-2 A.I. CODE: 057201 CFR No. 180.206		1yr feeding- dog NOEL= 0.0500 mg/kg 0.00 ppm LEL= 0.2500 mg/kg 0.00 ppm ONCO: E (RfD/PR Committee)	Brain ChE inhibition; slight tremors in M&F, marginal inhibition of body weight gain in M. No evidence of carcinogenicity in rats or mice.	ADI UF -->100 OPP RfD= 0.000500 EPA RfD= 0.000000	No data gaps. RfD Pending RAC approval of RAF ChE report.	WHO reviewed 1985 HED reviewed 06/13/86 EPA deferred 08/05/86 HED reviewed 05/05/88 EPA deferred 07/20/88 RfD/PR reviewed 09/23/93

POPULATION SUBGROUP	TOTAL TMRC (MG/KG BODY WEIGHT/DAY)		NEW TMRC AS PERCENT OF RFD	DIFFERENCE AS PERCENT OF RFD	EFFECT OF ANTICIPATED RESIDUES	
	CURRENT TMRC*	NEW TMRC**			ARC	%RFD
U.S. POPULATION - 48 STATES	0.000518	0.000518	103.615200	0.000000	0.000078	15.51840
U.S. POPULATION - SPRING SEASON	0.000509	0.000509	101.720600	0.000000	0.000076	15.10460
U.S. POPULATION - SUMMER SEASON	0.000514	0.000514	102.832000	0.000000	0.000075	15.02560
U.S. POPULATION - FALL SEASON	0.000525	0.000525	104.973000	0.000000	0.000080	16.00000
U.S. POPULATION - WINTER SEASON	0.000520	0.000520	103.990200	0.000000	0.000080	15.93360
NORTHEAST REGION	0.000490	0.000490	97.921400	0.000000	0.000073	14.60460
NORTH CENTRAL REGION	0.000551	0.000551	110.179800	0.000000	0.000086	17.11460
SOUTHERN REGION	0.000530	0.000530	105.952200	0.000000	0.000079	15.74580
WESTERN REGION	0.000482	0.000482	96.301600	0.000000	0.000070	14.00280
HISPANICS	0.000526	0.000526	105.149200	0.000000	0.000077	15.35060
NON-HISPANIC WHITES	0.000520	0.000520	103.942800	0.000000	0.000079	15.75800
NON-HISPANIC BLACKS	0.000505	0.000505	100.998600	0.000000	0.000073	14.54200
NON-HISPANIC OTHERS	0.000424	0.000424	84.762000	0.000000	0.000055	11.03660
NURSING INFANTS (< 1 YEAR OLD)	0.000199	0.000199	39.767200	0.000000	0.000024	4.88020
NON-NURSING INFANTS (< 1 YEAR OLD)	0.000693	0.000693	138.630600	0.000000	0.000096	19.11960
FEMALES (13+ YEARS, PREGNANT)	0.000353	0.000353	70.646600	0.000000	0.000052	10.35940
FEMALES 13+ YEARS, NURSING	0.000404	0.000404	80.761000	0.000000	0.000057	11.48160
CHILDREN (1-6 YEARS OLD)	0.001111	0.001111	222.214200	0.000000	0.000157	31.35540
CHILDREN (7-12 YEARS OLD)	0.000815	0.000815	163.007600	0.000000	0.000117	23.31360
MALES (13-19 YEARS OLD)	0.000577	0.000577	115.344600	0.000000	0.000086	17.12640
FEMALES (13-19 YEARS OLD, NOT PREG. OR NURSING)	0.000479	0.000479	95.811000	0.000000	0.000071	14.25060
MALES (20 YEARS AND OLDER)	0.000421	0.000421	84.216200	0.000000	0.000066	13.13140
FEMALES (20 YEARS AND OLDER, NOT PREG. OR NURS)	0.000346	0.000346	69.211400	0.000000	0.000055	11.00800

*Current TMRC does not include new or pending tolerances.

**New TMRC includes new, pending, and published tolerances.

TOLERANCE ASSESSMENT SUMMARY FOR Phorate (Thimet)
USING ANTICIPATED RESIDUES
CASWELL #660

DATE: 02/05/96

ANALYSIS FOR POPULATION SUB-GROUP: U.S. POPULATION - 48 STATES

EXISTING ANTICIPATED RESIDUES (PUBLISHED ONLY)
RESULT IN AN ARC OF: 0.000078 MG/KG/DAY
THE EXISTING ARC IS EQUIVALENT TO: 15.518 % OF THE ADI.

NO NEW ANTICIPATED RESIDUES ARE IN THE FILE.

NO OTHER PENDING ANTICIPATED RESIDUES ARE IN THE FILE

ANALYSIS FOR POPULATION SUB-GROUP: CHILDREN (1-6 YEARS OLD)

EXISTING ANTICIPATED RESIDUES (PUBLISHED ONLY)
RESULT IN AN ARC OF: 0.000157 MG/KG/DAY
THE EXISTING ARC IS EQUIVALENT TO: 31.355 % OF THE ADI.

NO NEW ANTICIPATED RESIDUES ARE IN THE FILE.

NO OTHER PENDING ANTICIPATED RESIDUES ARE IN THE FILE